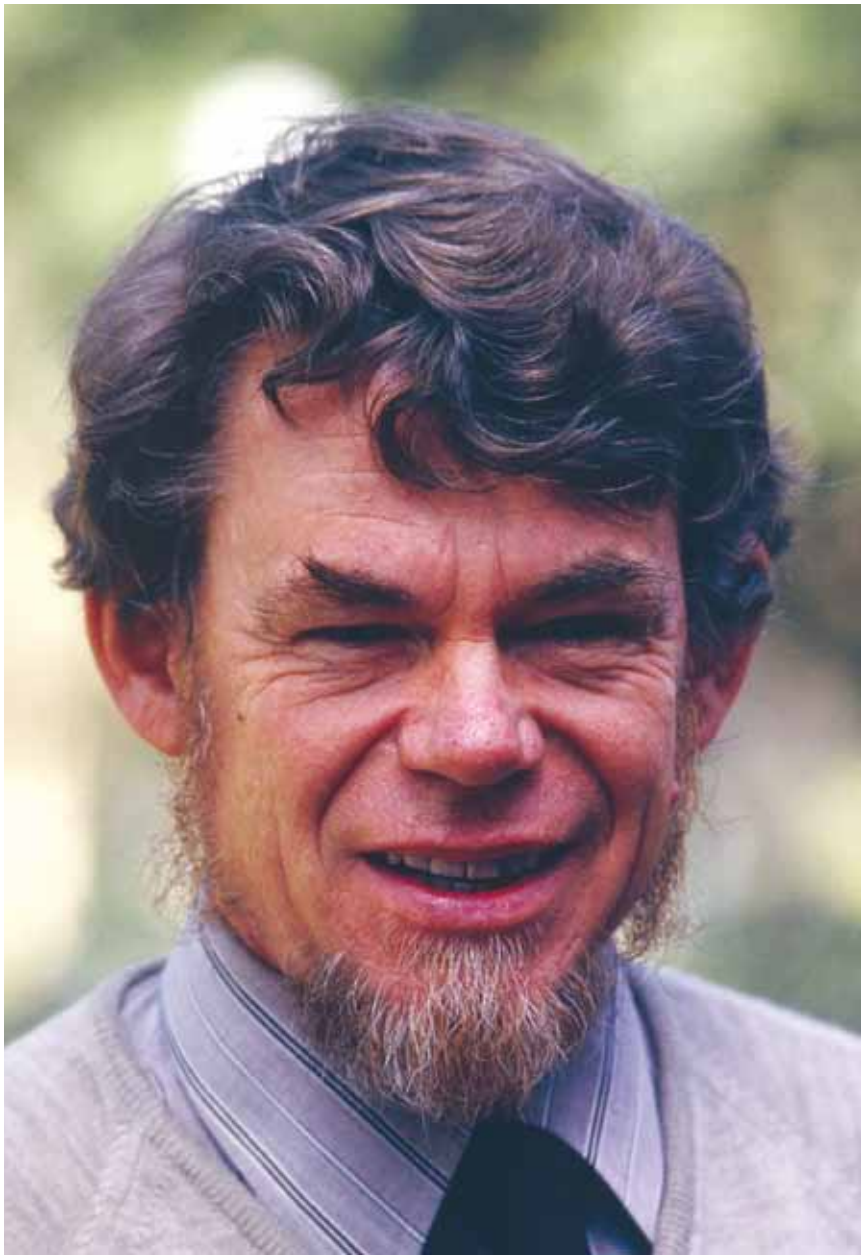
LOOSE FILLINGS

IN THIS ISSUE ...

MANY TRIBUTES TO GRAHAM HOWARD



Graham Campbell Howard

by John Medley

It is no wonder there were adult males bawling in the streets at the Phillip Island historic races in March 2013. We knew we were about to lose one of the giants of our motor racing ... Graham Howard.

Graham raced old racing cars, hillclimbed old racing cars, rebuilt old racing cars, worked on committees of old racing car clubs, created and initiated rules for old racing cars, was a committeeman organizing race meetings, a commentator at race meetings, on radio, and on TV. He even perforce drove old cars on the road—but most of all he wrote splendidly about old racing cars and their custodians.

He wrote with a unique view, a unique perception, and he was a prolific writer who wrote well. He was THE chronicler of our motor racing times. No one could do what Graham did, and certainly none could do it better.

Tamworth born and bred by academic parents, Graham brought his keen intellect to Sydney University in 1955 (where he was one of the founders of the Sydney University Car Club, and where we first met), then returned to Tamworth where he became involved with the Tamworth Sporting Car Club and Tamworth Hillclimb (with not one but two Notas). He and I shared my first commentary there in 1960.

His return to Sydney in 1962 brought him to journalism, among other endeavours – like his Peugeot 203 station-sedan freight business so financially suicidal that it was called Hari Kari. Later he streamlined the raingutters of his Lotus-carrying VW Kombi truck with plasticine, attaching threads of wool, and was reported driving standing up to study the direction of the wool tufts. A serious boffin, this! He was one of the earliest computer journalists; he worked in

Left: Graham Howard, photo courtesy Steve Normoyle and Australian Motorsports News

other areas as well, but his real focus was on motor racing, increasingly on historic motor racing and motor racing history.

Despite some memorable inner-city Sydney parties, surviving indeed serious smoking of Gauloises, he married Maria in 1970 and they had two boys— Patrick (now 33) and Jackson (now 29). Of Maria, Graham wrote with great grace "I thank my wife for her patience and faith —both sorely tried during this project. She outshines any confection of mine, and always will".

Perennially penurious, he somehow managed to rebuild numerous cars, including in his Lotus Period (Lotus 6, Le Mans competing Lotus 9 which American Joe Bosworth had brought to Australia, and with Tony Caldersmith the Sabakat (Lotus 12) recreation). He was a Lotus expert, acknowledged World-wide. He sought other Lost Causes, from his rebuild of Nota apprentice Brian Rawlings' Bulant single seater to various historic motorcycle engined cars like BRM500/1000 and Coopers—which led him to another of his masterworks, the wonderful journal "Loose Fillings", a publication which specialized in that sort of racing car.

The influence of Graham's writings was enormous, recently described by one observer as "gigantic". He wrote "Let's Go Climbing", "CAMS is Us", and race reports for "Racing Car News", he wrote glossy illustrated learned articles for "Sports Car World", he wrote for and edited (as an amateur enthusiast's labour of love) the splendid "Historic Racing Register" Newsletter, he drafted some of the earliest Historic Racing rules ("as it was, so it shall be" was one of Graham's), and for 35 years wrote "Historically Speaking" for "Auto Action". He wrote an annual treatise for the "Australian Motor Racing Yearbooks", with a long-term vision and a balance rarely seen. His work as editor and main writer for "Australian Autosportsman" was pure quality, neatly balancing past and present. Careful detail, economy of words, the linking of past and present on-and-off-track, the barely-bridled enthusiasm, the self-effacing style were always there.

What he wrote informed, moved, and inspired us. What he wrote reflected his keen intellect, ready wit, perceptive eye and ear, and his sympathy for competitor, spectator, and participants of all persuasions. He never deserved a witty-one's comment when, in a late evening Warwick Farm few drinks, he scratched futilely with a faulty ballpoint pen at a piece of paper retrieved from a nearby garbage bin "Still writing rubbish, Graham?"--but he laughed anyway.

He wrote some great books, "The 50 Year History of the Australian Grand Prix" (with Stewart Wilson and others), "Australian Touring Car Championship 25 Fabulous Years" (with Stewart Wilson) and "Larger than Life"(of Lex Davison) being well researched, written in characteristic Graham Howard style, and containing a huge list of those consulted and interviewed.

The sheer volume of this great body of work, both as journalist and as historian puts Graham in a pre-eminent position in Australia. I cannot think of any that have come close.

It was a life well-lived, and highly respected. He would be his usual polite, funny, self effacing, mentally sharply acute self if he heard this. Graham to me recently said "I have much to be modest about, John". He is wrong. He did brilliantly, and significantly influenced several generations of True Believers.

Thanks, mate. I am one of the huge multitude who enjoyed the ride

Our 'Grime'

I am not sure when I first met Graham, but it must have been about the second Amaroo All-Historic meeting of 1977. I had come to Australia in late 1974 as the modern equivalent of the Ten Pound Pom.

Settling in to Melbourne wasn't easy – the job, housing, transport and social were all significantly different and it took a while to adjust. My first motorsport experience was a shock. At Sandown Park for a round of the Trans Tasman there was, to this new chum's senses, an awful lot of drinking by men in shorts and thongs. It was a bit different from the beer tent at Silverstone. Eventually I came to Sydney but missed the first All Historic Amaroo.

I found what I had been missing so much at the subsequent meetings. Along with John Medley and Robbie Rowe, Graham soon showed me something of the richness of the culture and history of Australian motorsport. We lived not far apart and so it was to him that I often turned when I needed a briefing on some aspect of the local history.

My first collaboration with Graham was when I was consulting on initial proposals for the National Motor Racing Museum – currently a mere shadow of what was originally planned for the Bicentennial. Graham expertly drafted a collections policy for motor cars which sympathetically embraced both the origins of Australian motor racing and its modern touring car emphasis.

Eventually *Loose Fillings* came into being; it was largely Graham's idea and Garry Simkin and I came along for the ride. For 42 issues spanning 14 years Graham fossicked for air-cooled history and stories of research, restoration and racing and it was he who wrote most of it with the balance and perception that others have described so much better than I can.

He leaves behind not only a great gap in our lives but an important legacy in the form of a mass of important writings and an enormous archive of cuttings, photographs, research notes, letters and ephemera. Garry and I have taken this over and we will ensure it survives in Graham's memory long into the future. *Terry Wright*

Below: Graham in his Lotus 6 at Amaroo Park

Keeping Old Things in Place
Part 1: a simplified fits system

by Terry Wright

In his long standing and still useful book Tuning for Speed, Phil Irving recommends a 'thou per inch' diameter for the interference fit of main bearings in crankcases and camshaft/ bush running clearances of '2 thou'. Disappointingly he doesn't provide much more advice on this topic and puts forward the caution 'Where the amatuer tuner does not possess detailed knowledge of the minimum clearances essential at certain points he should consult the makers'.

My interest in fits and tolerances first arose because of that much under-designed component - the JAP V-twin timing-side main bearing. It was not answered by looking at some original JAP machining drawings – mainly of crankcases. By and large these did not align with Phil Irving's formula. There are numerous examples of main bearings being specified 'size-for-size' (i.e. +/- 0.0005") in aluminium alloy housings although some of the later drawings have tighter fits but still only of the order of. -0.0015"/-0.0005". No longer being able to telegraph 'PRESTWICH, TOTTLANE, LONDON' for advice, I have been wondering what sort of fitting practice was appropriate for the manufacture of replacement components for old motorcycle-type engines and gearboxes. No doubt the conclusions may apply to almost any 'obsolete engineering'.

The fit of a part in another is the product of the coincidence of the finished sizes of each part. These sizes should be made within specified tolerances, *tolerance* strictly speaking being the dimensional difference between the *maximum and minimum limits of size*. The *upper and lower deviations* are the dimensional differences between the maximum and minimum limits and the *basic size* which can also be called the *nominal size* and be represented by the *zero line.*

Got that? OK, there are several issues to be resolved. First, what is the appropriate *fit* for the application, be it *interference, transitional* or *clearance*? Second, what are the *limits of size* that ensure that the appropriate fit is always achieved?

Much of the theory of this subject is concerned with manufacturing realities. But even in one-off custom machining the question of tolerance needs to be considered if acceptable fits are to be achieved without every part being made specifically to fit its mate.

To see how it might have been done pre-war and maybe later, have a look at Figure 1. It's from a pocket book used by my father-in-law who was an apprentice from 1940 and a toolmaker at the Automatic Telephone Company and then Joseph Lucas in Liverpool UK. Here there are upper and lower deviations on standard holes and shafts, and various classes of fit; I understand this proprietary system was widely used in British manufacturing.

I could have stopped here and just used these Newall values but before long I would have had to tackle a completely different approach in order to use the recommendations found, for example, in rolling bearing manuals. There the tolerances on holes (housings) and shafts are described in a strange alpha-numeric notation.

In Figure 2, by way of example, this notation is shown in brackets alongside another set of 10 recommended fits which are in the American standard ANSI B4.2 *-Preferred-Metric-Limits-and-Fits.* In brackets are the hole and shaft tolerances which aren't specified in terms of dimensional values but using an international system which is set out in detail in *ISO 286-1:1988–ISO system of limits and fits - Part 1: Bases of tolerances, deviations and fits.* This worldwide system had long been in use in Europe when it was adopted in the UK as BS 1916 in 1953, and in Australia as AS B132 in 1955. America followed sometime afterwards, at least for metric applications.

The ISO system provides a notation for holes (using capital letters) and shafts (using lower case letters). Letters signify where the upper and lower limits of size are in relation to the basic size; the lower down the alphabet the letter is, the larger the hole or shaft is allowed to be in relation to the basic size.

CLASS "A" Tolerances in Standard Holes.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	+00025	+0005	+00075	+001	+001	+001	+0015
LOW LIMIT	−00025	−00025	−00025	−0005	−0005	−0005	−0005
TOL.	.0005	.00075	.001	.0015	.0015	.0015	.002

CLASS "B" Tolerances in Standard Holes.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	+0005	+00075	+001	+00125	+0015	+00175	+002
LOW LIMIT	−0005	−0005	−0005	−00075	−00075	−00075	−001
TOL.	.001	.00125	.0015	.002	.00225	.0025	.003

CLASS "X" For Engine Work where Easy Fits are required.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	−001	−00125	−00175	−002	−0025	−003	−0035
LOW LIMIT	−002	−00275	−0035	−00425	−005	−00575	−0065
TOL.	.001	.0015	.00175	.00225	.0025	.00275	.003

CLASS "Y" For High Speeds and good average Machine Work.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	−00075	−001	−00125	−0015	−002	−00225	−0025
LOW LIMIT	−00125	−002	−0025	−003	−0035	−004	−0045
TOL.	.0005	.001	.00125	.0015	.0015	.00175	.002

CLASS "Z" FOR FINE TOOL WORK.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	−0005	−00075	−00075	−001	−001	−00125	−00125
LOW LIMIT	−00075	−00125	−0015	−002	−00225	−0025	−00275
TOL.	.00025	.0005	.00075	.001	.00125	.00125	.0015

CLASS "D" DRIVING FITS.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	+0005	+001	+0015	+0025	+003	+0035	+004
LOW LIMIT	+00025	+00075	+001	+0015	+002	+0025	+003
TOL.	.00025	.00025	.0005	.001	.001	.001	.001

CLASS "F" FORCE FITS.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	+001	+002	+004	+006	+008	+010	+012
LOW LIMIT	+0005	+0015	+003	+0045	+006	+008	+010
TOL.	.0005	.0005	.001	.0015	.002	.002	.002

CLASS "P" PUSH FITS.

NOM. DIAS.	Up to 1"	1" to 1"	1" to 2"	2" to 3"	3" to 4"	4" to 5"	5" to 6"
HIGH LIMIT	−00025	−00025	−00025	−0005	−0005	−0005	−0005
LOW LIMIT	−00075	−00075	−00075	−001	−001	−001	−001
TOL.	.0005	.0005	.0005	.0005	.0005	.0005	.0005

NOTE. "A" Fit to be used as "WORKING" Limit.
"B" " " " " " "INSPECTION" "
"X" Fit for Engine Work where easy Fits are required.
"Y" Fit for High Speeds and good average Machine Work.
"Z" Fit for Fine Tool Work.

Figure 1: Newall Standard Table of Limits

LOOSE RUNNING fit for wide commercial tolerances or allowances on external members **(H11/c11)**

FREE RUNNING fit not for use where accuracy is essential, but good for large temperature variations, high running speeds, or heavy journal pressures. **(H9/d9)**

CLOSE RUNNING fit for running on accurate machines and for accurate location at moderate speeds and journal pressures. **(H8/f7)**

SLIDING fit not intended to run freely, but to move and turn freely and locate accurately. **(H7/g6)**

LOCATIONAL CLEARANCE fit provides snug fit for locating stationary parts, but can be freely assembled and disassembled. **(H7/h6)**

LOCATIONAL TRANSITION fit for accurate location, a compromise between clearance and interference. **(H7/k6)**

LOCATIONAL TRANSITION fit for more accurate location where greater interference is permissible. **((H7/n6)**

LOCATIONAL INTERFERENCE fit for parts requiring rigidity and alignment with prime accuracy of location but without special bore pressure requirements.**(H7/p6)**

MEDIUM DRIVE fit for ordinary steel parts or shrink fits on light sections, the tightest fit usable with cast iron. **(H7/s6)**

FORCE fit suitable for parts which can be highly stressed or for shrink fits where the heavy pressing forces required are impractical. **(H7/u6)**

Figure 2: Some fit classes from ANSI B42

Numbers following the letters indicate the *tolerance class* - that is the quality. The higher the number the larger, proportionally, is the tolerance. So in a hole tolerance class of 'H7', the 'H' tells us where the limits are in relation to the basic size. The '7' describes how close together the upper and lower limits are. A fit is described by combining the hole and the shaft notations as in 'H7/f6'.

To make use of this you need to look up the values of H, f, 6 and 7 in tables in the standards (or calculate them) and this is where the bearing tables may leave you in trouble or just a bit confused. Figure 3 will hopefully make this clearer. It graphically represents a selection of commonly used fits similar to the definitions in Figure 2 and shows the extent and relationship to the basic size of various classes of tolerances.

It's not the aim of the ISO system to give guidance on what the tolerance values should be for any situation–what limits of size are acceptable and how free or tight a fit should be. That's a matter for the designer but there are some general-purpose recommendations around such as the ones above. The first British Standard had a *Guide to the selection of fits (BS1916:Part2: 1953)* which is as good an explanation as I have seen but it's too lengthy to print here.

For my one-off purposes I felt these recommendations were too liberal and, by a lot of massaging, both numerically and literally, I arrived at a 'tighter' fit system with fewer levels with the ISO tolerances and fits translated into numerical values, as given in Figure 4. These fits are not very different to those found in original JAP drawings but the tolerances are somewhat tighter, giving a higher probability that the actual fit will be closer to the optimum. For practical purposes take the precise values given here with a pinch of salt.

Since I worked this out years ago by manual methods, things have become much easier because there is, for example, a neat little computer program such as *QMSys Tolerance and Fits* which is quite cheap from www.qsyst.com.

I have used it to update my table because the programme allows you to insert basic sizes, chose what application you want to devise a fit for and get results in terms of machining dimensions and the anticipated higher and lower limits of fit. You can download a trial version so why not try it to see if you think it would be useful to you?

Next: bearings and housings

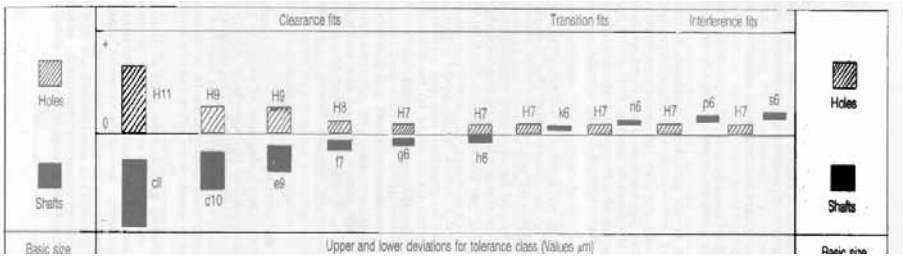
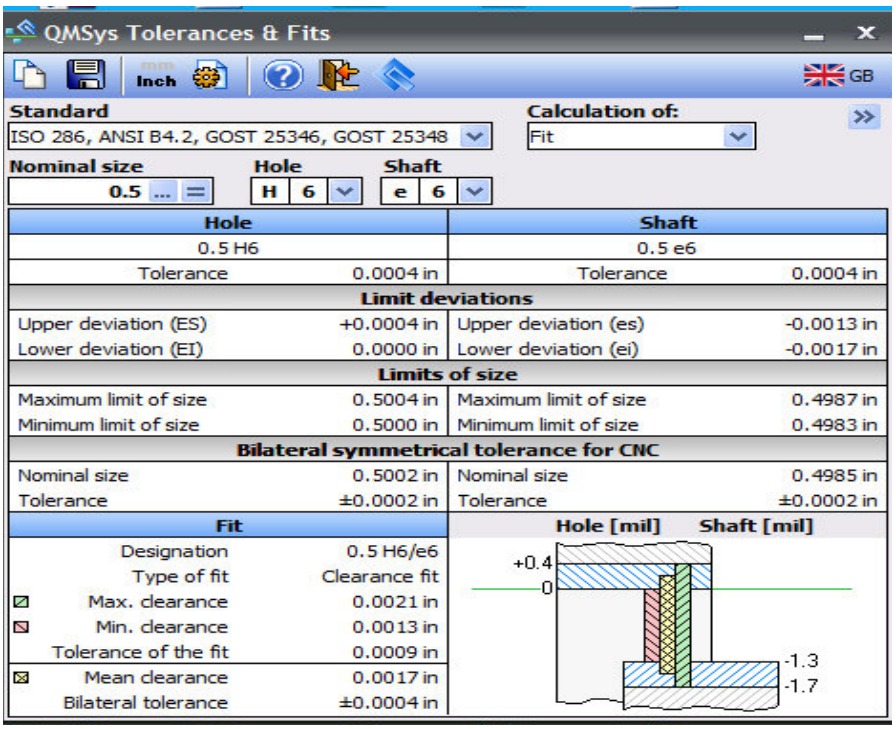


Figure 3: Preferred classes for various fits (from Currey, R; ed, Fitting and Machining , RMIT Publications, Melbourne, 2004.

CLEARANCE	*FREE*							
Dia inch	Hole (H6) +		Shaft (e6) -		Max fit	Min fit	Mean fit	Typical J A P application
1/4-3/8	0.0004	0.0000	0.0010	0.0013	0.0017	0.0010	**0.0013**	*Oil pump drive in bush*
3/8-11/16	0.0004	0.0000	0.0013	0.0017	0.0021	0.0013	**0.0017**	*Fuel pump rod*
11/16-1 3/16	0.0005	0.0000	0.0016	0.0021	0.0026	0.0016	**0.0021**	*Rotary valve in bush*
								Dowel in timing cover
Not for use where accuracy is essential but good for large temperature variations and high journal pressures					*Running fits with speeds of 600 r.p.m. or over. Wobble or shake between mating parts slight. Part will turn and slide easily.*			
CLEARANCE	***CLOSE***							
Dia inch	Hole (H6) +		Shaft (f6) -		Max fit	Min fit	Mean fit	Typical J A P application
1/4-3/8	0.0004	0.0000	0.0005	0.0009	0.0012	0.0005	**0.0009**	
3/8-11/16	0.0004	0.0000	0.0006	0.0011	0.0015	0.0006	**0.0011**	*Camlever on pin*
11/16-1 3/16	0.0005	0.0000	0.0008	0.0013	0.0018	0.0008	**0.0013**	*Camlever pin in timing cover*
For accurate location at moderate speeds					*Running fits under 600 r.p.m. Wobble or shake between mating parts only noticeable with short bearing length.*			
TRANSITIONAL	***SNUG***							
Dia inch	Hole (H6) +		Shaft (g5) -		Max fit	Min fit	Mean fit	Typical application
1/4-3/8	0.0004	0.0000	0.0002	0.0004	0.0008	0.0002	**0.0005**	*Oil pump drive worm on shaft*
3/8-11/16	*0.0004*	*0.0000*	*0.0002*	*0.0005*	*0.0010*	*0.0002*	***0.0006***	
11/16-1 3/16	*0.0005*	*0.0000*	*0.0003*	*0.0006*	*0.0011*	*0.0003*	***0.0007***	*Gudgeon pin in small end.*
Not intended to run freely but to move and turn freely and locate accurately					*Closest fit which can be be assembled by hand and Needs work of considerable precision. Should be used where no perceptible shake is permissible*			
INTERFERENCE	***DRIVE***							
Dia inch	Hole (H6)+		Shaft (p6)+		Max fit	Min fit	Mean fit	Typical application
1/4-3/8	0.0004	0.0000	0.0006	0.0008	-0.0001	-0.0002	**-0.0006**	
3/8-11/16	*0.0004*	*0.0000*	*0.0007*	*0.0010*	*-0.0011*	*-0.0003*	***-0.0007***	
11/16-1 3/16	*0.0005*	*0.0000*	*0.0009*	*0.0011*	*-0.0014*	*-0.0004*	***-0.0009***	*Gudgeon pin in piston when tight*
Fit for ordinary steel parts or shrink fits on light sections								
INTERFERENCE	***FORCE***							
Dia inch	Hole (H6)+		Shaft (s6)+		Max fit	Min fit	Mean fit	Typical application
1/4-3/8	0.0004	0.0000	0.0009	0.0013	-0.0013	-0.0006	**-0.0009**	*Dowel in crankcase*
3/8-11/16	*0.0004*	*0.0000*	*0.0011*	*0.0015*	*-0.0015*	*-0.007*	***-0.0011***	*Bushes in crankcase,*
11/16-1 3/16	*0.0005*	*0.0000*	*0.0014*	*0.0019*	*-0.0019*	*-0.0009*	***-0.0014***	*Camlever insert in crankcase*
Considerable pressure required and parts are considered more or less permanently assembled.					*Bushings and similar uses.*			

Figure 4 (above) : the author's simplified fits table. Figure 5 (below) the QMYS program calculating a fit.



A TALE OF TWO TASMANIAN COOPERS

by Rob Saward

There were, at various times between 1953 and about 1973, five aircooled Cooper racing cars resident in Tasmania. The two cars described here were the last of the five to reach Tasmania, both being raced over an extended period by the two David Powells, senior and junior. The second car was also raced by top Tasmanian driver of the 1950s, Jock Walkem.

A Hawthorn Green Cooper chassis Mk5/41/51 was the fourth Cooper to become resident in Tasmania. It made its Tasmanian debut at the third Baskerville meeting in April 1958 in the hands of Elson John (Jock) Walkem. This was arguably the most famous Australian air-cooled Cooper, the ex Tom Hawkes/Stan Jones/Bill Patterson car which was driven over a 5 year period by Bill Patterson to many race wins and the 1954 Australian Hillclimb Championship.

Walkem purchased the car from Ken Wylie in Melbourne who had run it to good effect in 1956-57 with Norton Manx and JAP 8/80 engines, but it was sold only with the 996cc JAP 8/80 engine. Walkem's first Baskerville meeting was a very successful one, leaving with a win and the outright lap record for the circuit. Jock Walkem owned the car for less than 8 months but it was a very successful period which is stamped indelibly on the minds of many Tasmanian enthusiasts.

Surviving colour photographs from this period show that the car was in beautiful condition, clearly having been well maintained by its owners to that time. Jock Walkem retired from driving after Baskerville in November 1958, selling the Cooper to an unknown Hobart person who is reputed to have test driven the car, decided it was too scary for him and advertised it for sale in *Australian Motor Sports* in November 1959.

It was purchased by Melbourne driver/ engineer John Hartnett, who corroborated the previous owner's opinion of the drivability of the 8/80 JAP engine and raced it with a JAP single. *Loose Fillings* #25 contains John Hartnett's account of the car. Mk5/41/51 returned to Tasmania two years later, but not before a fifth Cooper found its way to Tasmania. The fifth and last air-cooled Cooper to become resident in Tasmania made its debut at Baskerville in November 1958, when David Llewellyn (Dave) Powell, recently retired from a stellar motorcycle racing career which included wins in many state championships, first raced the red-painted Cooper Norton he had bought from Victorian Jack French. The chassis plate of this car is now missing (see Kerry Smith's notes in *Loose Fillings* #42) but was likely 10/31/49, making it a Mk3.

Jock Walkem in his green Cooper Mk5 with JAP 8/80 at Penguin Hillclimb 1958. Photo J.Smith

10-31-49 was one of four early cars imported early in 1950 by Keith Martin, whose business Cooper Racing Car Distributors was then the Australian distributor. The Cooper, which was fitted with a JAP dry-sump 8/80 engine was imported less body, presumably to save import duty at a time when Australian tariff regimes strongly protected local motor body building. Martin's April 1950 *Australian Motor Sports* advertisement noted:

"Immediate delivery; this offer is made to an enthusiast who can build his own body and wants to enjoy the pleasure of owning a fast genuine factory racing car".

The car remained unsold for about two years before Lex Davison purchased it in February 1952 and commissioned a locally-made body (according to later owner Jack French, by the Pioneer Coaches bodybuilder in South Melbourne). This work included some chassis modifications to give the car Mk5-style pannier side panels and a Mk5style tail panel.-Davison purchased a Vincent Black Lightning racing sidecar outfit to get the engine he wanted for the car (having sold the new JAP 8/80 and Norton gearbox via an AMS

Jock Walkem's green Cooper Mk V with JAP 8/80 at Baskerville April 1958. Photo Jock Walkem collection via Randall Langdon.

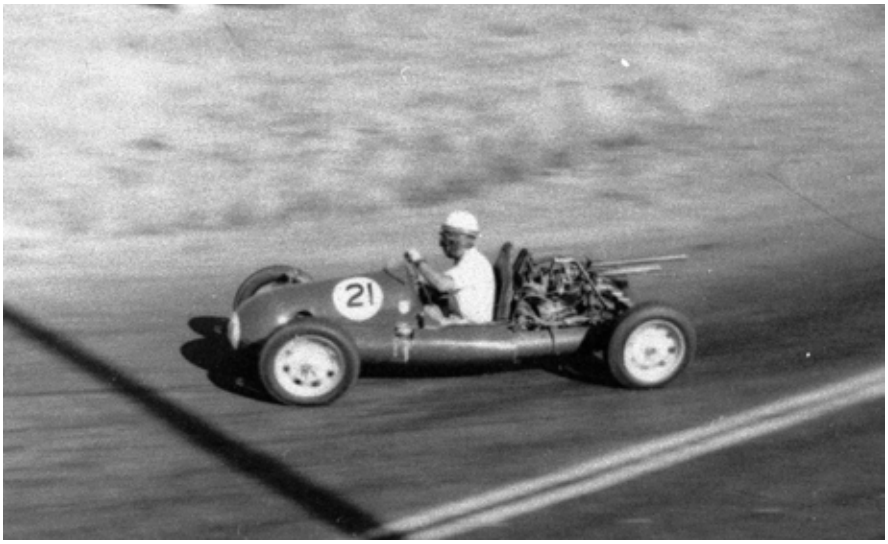
advertisement), but never completed the project and sold it (un-raced) less engine to Reg Smith of Reno Auto Sales. He fitted an 1100cc 'Alfin' Mark 1 JAP .He raced it (sparingly it seems – I have only been able to find a few recorded appearances) as the *Warm Rod* special, alongside his JAP 497cc Mk5, the ex Dick Cobden car which was called *Cold Rod*.

Reg Smith sold 10/31/49 in 1957 to ex racing motorcyclist Jack French who fitted a Manx Norton engine and raced it successfully in Victoria. Dave Powell purchased the car from French in mid 1958, but immediately replaced French's Norton engine with one of his own double knocker Manx engines. Powell made his first appearance in a racing car at Baskerville in November 1958. It was not long before a win came Powell's way in a handicap event at Longford in March 1959, beginning a two year period in which this became probably the most raced car in Tasmania. It brought many successes to a man who was recognised by his peers as being as gifted in a racing car as he was on a bike. He gained national recognition at the November 1959 Australian Hill Climb Championship at Hobart's Queen's Domain course by achieving fastest time in the under 500cc class, beating highly rated Victorian Alan Staton to the class win and achieving fifth overall behind Bruce Walton.

Over the Christmas-New Year period of 1959-60 Powell converted the red Cooper to Vincent twin power, debuting in this form at Baskerville in February 1960. The March 1960 Longford meeting does not contain an entry for Powell but photographic evidence (as seen here, taken on Friday practice day by Winston Saward) says the car was definitely there, with Powell driving.

By the second Symmons Plains meeting in May 1960 the engine had been enlarged to 1098cc using a Phil Irving-supplied 99mm stroke flywheel kit, in which form it was raced through 1960.

To be continued



Dave Powell in his red Cooper Mk III Vincent, Longford practice March 1960. Photo W.Saward

Dave Powell Senior in his red Cooper Mk3 Norton with Mk5-type bodywork at Baskerville, 1958. Photo Jock Walkem collection via Randall Langdon

BITS & PIECES

● Team Greeneklee had a less than happy run at Winton Victoria on the last weekend in May. A broken axle, brake dramas,and stalling in the warm-up area for Brian Simpson in the Cooper Mk9 JAP thwarted his efforts. Derry drove the Mk5 JAP and Alan Morton made a long overdue return in the Alba Triumph.

● Andrew Halliday's Waye JAP 500 has made its way to the UK for new owner Doug Yates. It may end up in events with the other well known South Australian car, Kerry Horan's Trenberth Vincent. Doug is keen to obtain further information and photos of the Waye. Please contact Garry S imkin who will forward them on.

CLASSIFIEDS

For sale: Waye 500, built in 1953, CAMS log book, [redacted] GONE TO ENGLAND igine ... Andrew Halliday 02 9888 6175.

For sale: 12V roller starting system to get your air-cooled car fired up. New and unused. Garry, 02 9958 3935, or gjsimkin@iprimus.com.au.

For sale: JMW 1956 rolling chassis complete as originally built by John Wynn and his dad. ... No time to finish this great, quick, air-cooled car located in Melbourne. Inspection welcome. Open to all reasonable offers: Tony 0411-707-547, ajsmax@optusnet.com.au.

Loose Fillings is published digitally and in print about 3 times year. Please send a book of 65c Australian stamps to receive printed issues by post in Australia only or supply your email address. Recent issues can be found in pdf format at www.hsrca.com.

EDITOR: Terry Wright, 02 9418 2974, tsrwright@gmail.com

PUBLISHER: Garry Simkin, 28 McClelland Street, Willoughby, NSW 2068, Australia, 02 9958 3935, gjsimkin@iprimus.com.au

FOUNDING EDITOR: Graham Howard